MINUTES
CHIEF OF ENGINEERS ENVIRONMENTAL ADVISORY BOARD
April 30, 2008
Seattle, WA

1. The Chief of Engineers, **LTG Robert L. Van Antwerp**, called the Environmental Advisory Board (EAB) to order at 0900, hours, 30 April 2008 at the Red Lion Hotel, Seattle, WA. The following EAB members were present:
    - **Dr. George F. Crozier**, Chair; Executive Director, Dauphin Island Sea Lab, (retired)
    - **Dr. Courtney T. Hackney**, Vice Chair; Professor of Biology, University of North Florida, Jacksonville;
    - **Dr. Richard F. Ambrose**, Director of the Environmental Science and Engineering Program, Professor, Department of Environmental Health Sciences, University of California at Los Angeles;
    - **Dr. Stephen O. Farber**, Director of the Environmental Management and Policy Program in the Graduate School of Public and International Affairs, University of Pittsburgh (retired)
    - **Dr. Christopher I. Goddard**, Executive Director of the Great Lakes Fisheries Commission;
    - **Dr. James E. Kundell**, Director of the Environmental Policy Program, Vinson Institute of Government, University of Georgia

Also present were **Mr. Steven Stockton**, Director of Civil Works, **Mr. Theodore Brown**, Acting Chief, Planning and Policy; **Col. Michael McCormick,** Commander, Seattle District, and **Ms. Rennie Sherman**, Executive Secretary for the EAB.

2. WELCOMING REMARKS

LTG Van Antwerp opened the meeting with remarks on the history of the Board and a welcome to the Board and public. He specifically welcomed two members participating in their first public meeting, Dr. Christopher Goddard and Dr. James Kundell; and one continuing member, beginning his second term, Dr. Stephen Farber. These members were subsequently sworn in.

Dr. George Crozier stated that he appreciated the coordination and partnerships developed by the Seattle District, and stated that Seattle had "culture, crisis, and a critter – the trinity for getting things done." He stated that we need to identify leaders and expose them to the positive culture in Seattle and other high performing districts. One way to succeed is building green into the contract. He recommended to the Chief that the language to accomplish that be shared.

Dr. Farber said that the Board hears what the District says about rating and ranking projects being a limiting factor. There is more to be done as far as quantifying values, but there is information out there that can be used.

3. Center for Ecosystem Restoration.

Mr. Steven Stockton made a brief presentation on recent activities related to the Board's earlier (2006) recommendation to establish a Center for Ecosystem Restoration. In 2007, a large team composed of a broad cross-section of field, lab and headquarters staff accomplished a brainstorming process and identified several areas of interest including technical tools, technical competencies, partnerships and communications. In January of this year, a small team composed of lab and headquarters staff evaluated the specific problems identified in each area of interest, and carried out a gap analysis to determine what was currently on-going, whether it was sufficient, and what could additionally be undertaken. Progress has been slowed due to retirements. The Institute for Water Resources currently has the lead to finalize a plan of action.

Dr Crozier stated that he was pleased with the steps taken, recognized the reasons for the slow pace, but looks forward to progress. He continues to see a need for an environmental "champion" who would be working these issues all the time. It is too important to be a part-time responsibility. He also indicated the Board's support of NCER 09, the Third National Conference on Ecosystem Restoration (scheduled for July 2009) and expressed the recommendation of the Board that the U.S. Army Corps of Engineers (Corps) be a key player in both the planning and implementation of this conference.

Dr. Hackney stated that while others have expertise, water is the key to putting systems back together, and the Corps is the organization that can do it. He also emphasized the need for a champion at Headquarters. This would be a key resource both for the Chief and for the districts. There is still a need to capture information for lessons. We're still learning, but billions are being spent. In addition to a National leader, Dr. Hackney said thought should be given to regional technical leaders.

4. Environmental Operating Principles (EOP) of the U.S. Army Corps of Engineers

Ms. Brenda Bachman, Seattle District, briefed the EAB outlining how Seattle District is implementing the EOP. Her presentation and the discussion that accompanied it highlighted the steps that Seattle District has already taken and some of the ongoing efforts. She also discussed the District's sustainability goals and described a memo issued by the district in July 2006 that established measurable goals for the EOP and designated her as the leader for EOP implementation.

The EAB members stated their appreciation for quality of effort being accomplished by Seattle District to incorporate the EOP in all aspects of their mission.

Dr. Crozier asked how many other districts have a comparable EOP Champion.

LTG Van Antwerp replied that the answer was probably not very many.

Ms. Bachman stated that much of what she does is essentially "voluntary" and a relatively small portion of her job.

Dr. Crozier stated that the EAB feels strongly about the importance of the EOP, and reiterated that the EAB would like to serve as a bridge to external stakeholders. He also stated that in some ways, Seattle was "lucky" to have a culture (supporting environmental protection), crisis (ESA forcing action), and a critter (salmon) that necessitated the development and use of EOPs in the district prior to them being developed for the whole agency. The EOPs need to move from fuzzy to measurable long-term goals; they need indicators of success.

Ms. Bachman stated that an Environmental Management System (EMS) will develop those indicators. There is a Corps EMS developed by Omaha that can serve as a framework.

Dr. Crozier stated that the EAB really noticed the district's use of partnerships versus customers. He wondered how this can be translated to other districts. He stated that it would be valuable to have upcoming environmental leaders immersed in Seattle or another high performing district as a professional development opportunity.

Dr. Hackney stated that it would be valuable to build "green" into contracts.

LTG Van Antwerp stated that we would look into it and see if it could be made national. The Chief also mentioned that construction costs are going up and getting to Leed silver could mean downscoping to meet appropriation amounts.

Dr Hackney asked if this impacts how the Corps estimates project costs (i.e., to include sustainability).

LTG Van Antwerp stated that the Corps has gone to performance based budgeting, but ecosystem restoration projects are still challenging.

Dr. Crozier stated that that in the context of performance based budgets, the criteria for ecosystem restoration projects was still loose. The EOPs are not given sufficient weight in budget allocations.

LTG Van Antwerp stated that the challenge is to accomplish a broader system perspective.

Dr. Farber stated that there are public services associated with wetlands. There is much that can be done to characterize and quantify public services and one shouldn't simply dismiss as impossible. He appreciated the effort to make the EOPs hard and fast instead of soft and fuzzy. The Corps should explore more how districts can make the EOP hard and fast.

Dr. Kundell noted the differences in dealing with new versus existing projects . There are challenges in using EOPs on old projects.

Dr. Goddard suggested that the focus of the EOP could be broadened to include existing projects.

LTG Van Antwerp acknowledged that the Corps is trying to finish what they have begun (versus new starts), but legacy projects are difficult. Large scale infrastructure has much to be done.

Dr. Ambrose stated that he especially appreciated the presentation on the EOP. He agreed with moving beyond the "warm and fuzzy" and asked how the district could get EOP point persons and how much time should be devoted to EOPs. He stated that he is a member of the Sustainability Committee at UCLA and likes the idea of specific long-term sustainability goals. He asked whether indicators had yet been developed.

Ms. Bachman stated that indicators had not yet been developed but the intent was to develop an environmental management system and indicators would flow from that.

Dr. Ambrose stated that the Board could follow this topic by looking into implementation in another district.

Dr. Crozier stated that it might also be useful to survey the districts on EOP and sustainability and see how many have an EOP point person.

LTG Van Antwerp said that the challenge at districts is having to do this out of project funds. They could possibly look at general funding or designate a certain amount of a staffers' time to lead the EOP effort. He also stated that it might be possible to accomplish that in conjunction with Engineer Research and Development Center or the Planning Center of Expertise.

Dr. Crozier said that this is one of the reasons that the Corps could use a Center for Ecosystem Restoration with a full-time staff and permanent location. He reiterated the sense of the Board that the Corps needed to inculcate the principles of ecosystem restoration, to advocate and accomplish professional development by immersing staff in "high performing districts." He also indicated that the Board should learn more about the Ecosystem Planning Center of Expertise as it is presently functioning.

5. LEVEES AND ENVIRONMENTAL SUSTAINABILITY

Mr. Michael Scuderi, Seattle District, provided a briefing that focused on the challenges of meshing safety and the environment. He stated the challenge as: Building and maintaining flood levees in a manner that sufficiently protects the public without inflicting harm to the adjacent ecosystem. Levees by their nature constrain natural systems. The briefing included examples from King County where balance had been achieved. It also identified the difficulties posed by high risk situations and threatened species. In all these situations, time and dollar constraints were significant.

Dr. Hackney stated that it was important to have a view of the whole landscape. Because people become assured behind levees, infrastructure will be built. Dr. Hackney also asked if Global Climate Impacts results had been incorporated in risk consideration.

Mr. Scuderi replied that sea level rise impacts are beginning to be considered.

Dr. Kundell asked whether there are different standards for levees depending on the risk, like there are for dams.

Mr. Stockton responded by stating that dams are designed not to fail, while levees are designed to reduce risk. Levees are designed to protect property, but an evacuation plan is still required. The purpose is flood risk reduction – but residual risk still remains.

Dr. Crozier summarized by saying that they want to balance habitat with flood protection. Presently, it is not sustainable. Money is always being spent on maintenance. The Corps can provide leadership on deciding where we really should maintain levees and where we should not.

6. PUBLIC COMMENT

Twelve individuals addressed the EAB and LTG Van Antwerp.

Perry Falcone (Snoqualmie Watershed Forum--10-year partnership with Water Resource Inventory Area (ARIA) 7) commented that the key to salmon (Chinook and Coho Salmon) recovery is water quality and woody vegetation in streams. Salmon are at four percent of historical levels and seventy percent of Chinook bearing streams lack woody debris. We are working on water quality, habitat, risk reduction and coordinating with local flood control districts and salmon plans. Per PL-84-99 requirements, King County has been asked to remove 375 large cottonwoods—200 at one location—which would significantly increase the water temperature causing problems with the Salmon population. Design standards call for set-back and layback, but will not have an influence on water temperature. We want to keep trees since removal exacerbates water quality and temperature problems. Levee standards could be improved incorporating environmental benefits, and the Corps should better involve local agencies and groups when proposing levee repairs, as some have conflict with salmon restoration.

Judy Fillips (Citizen, Cedar River Safety Council) commented that what is missing from Corps plans is consideration for people. Heavy use of rivers for recreation—fishing, birders, kayakers, inner tubes)—is jeopardized. Inner tubes are often used, and Corps projects are dangerous, particularly when wood is placed for salmon restoration in bad locations (e.g., outside of bends). Wood can be safely put in other locations, e.g., inside of bends.

Martha Parker (Citizen, River Safety Council) commented that she has boated 46 Rivers in the State, and the Corps of Engineers design practices to help save fish causes a problem for boaters. Wood in rivers cause death –a drowning occurred on 13 Nov 2006 when wood

placed in the river pinned a boater. There were high flows on a Sunday--why not a Monday instead? [upstream project is Corps' Howard Hanson Dam].

Dick Nelson (Citizen, Tokeland) commented about a particular restoration project near his home on a cove which is still rather pristine. The Corps is looking at a sand dike for erosion control, authorized by WRDA 2000. WRDA 2007 added ecosystem restoration. The Corps process needs transparency. Ecosystem restoration project purpose needs to be stated prior to authorization. The baseline should be identified as prior to degradation [not current]. If the real purpose is to control the built environment, then that needs to be clear.

Holly Coccoli (Muckleshoot Tribe), commented on their fishing rights in the Green-Duwamish-Cedar watershed) and the 81 miles of levee reaches in their area, which need repair and environmental mitigation as they are being repaired. You need to push the envelope on levee vegetation, per climate change and heat, where safety isn't threatened. Salmon need the shade, shade, shade, so levee need to be shaded where safety is not threatened; benches can be made wider.

Joy Kenningston-Longrie (City of Seattle) commended use of Section 214 of 2000 WRDA, which sunsets in 2009 and needs an extension. In seven years, millions of dollars have been saved in avoided costs. Seattle has trained over 1000 city employees regarding the Corps activities. Seattle is working with the Corps on the Elliott Bay seawall, and they have an executive team meeting regularly. They are also, working on Green-Duwamish General Investigation Study. Improvements can be made: cost benefits for sea walls only include sea water effects; stream-side vegetation are important to fish and Threatened and Endangered Species and need more monitoring; need to include more benefit for streamside vegetation and water quality improvement in budget ranking. He said they have property issues regarding credit for lands already owned by City or others. He thanked the Corps for the short-term fix on Ballard Locks.

Roger Dane (City of Redmond) commented that flood control needs to include habitat enhancement. They need clear guidelines, a better balance between competing requirements, and a quick permit process. They have been working the past ten years on habitat projects on the Sammamish River with two miles restored. Invasive weed growth is a problem; restoration of native vegetation is needed.

Charles Bennett (Commissioner, Dike District No. 12, Skagit County) commented that his agency relies heavily on PL 84-99. They have concerns with agency (NMFS and FWS) consideration of fish over human lives. They work within fish windows, so there can be problems with timing of getting funds if Congress delays passage of bills. There are structural impacts to levees when large vegetation grows on them; they need better willow planting. Large woody debris placement can be damaging if not placed properly.

Sandy Kilroy (King County) commented that per levee vegetation policy, 2000 trees would be slated for removal, which would be in direct conflict with ESA. She stated that rivers here are different than in the rest of the country. Her agency requests the Corps declare PL-84-99 compliance a federal action and conduct ESA consultation. She stated that designs

of flood control projects should have environmental benefits. The design used for Briscoe School levee should be used throughout the basin. They have problems with real estate value for Green-Duwamish at Site 1.

Jean White (WRIA 8) expressed concerns with slow movement and funding issues at the Corps. They have worked with the Corps regarding the Lake Washington Ship Canal GI study. Issues include real estate, navigational servitude, permitting, and vegetation for shade. The Chittenden Locks diffuser well project is important. Items identified in the BiOp need more funds. Without funds, they fear no progress will be made.

Phyllis Meyers (National Marine Fisheries Service) commented that she is reviewing six levees to analyze their effect. She stated that monitoring needs to be done to see if projects are effective and that standards need revision to allow consideration of stability provided by trees.

Daryl Hamberg (Skagit Dike District 17) commented that PL-84-99 standards are there to protect. Their main concern is protecting life and property. PL-84-99 is not about a construction project, it is for repairs and should be treated as such.

7, CLOSING REMARKS AND ADJOURNMENT

LTG Van Antwerp asked about the exact science of levee. He suggested a need to get all involved, e.g., including FEMA, and a need for cross-leveling within the Corps.

Mr. Stockton said that the Sacramento District was working on a regional variance, but also that standards don't change. He also noted that it was important to keep in mind that the National Flood Insurance Program and PL 84-99 levee repair are two separate programs with different rules.

There being no further business, LTG Van Antwerp thanked the Seattle District and adjourned the meeting.